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ABSTRACT

A wide gap exists between available information on community college students and the questions which are often posed about them. Since most available data focus on cross-sectional measures of enrollment and degrees awarded, they provide few insights into what happens to students who enter the colleges. The question-and-answer gap owes its existence to several factors, among them the harried life of the institutional researcher and the difficulty of tracking students after they have left the college. In spite of these difficulties, the demands for student outcomes information are increasing. The success of college efforts to define and use indicators of student outcomes is guided by three factors. One is the nature of indicators and the importance of understanding what they can tell about students and what they cannot. The second is the decision-making process that policy makers and researchers undergo in developing indicator sets. The third is the importance of indicators to the success of student tracking systems. To successfully use indicators, community colleges must place more emphasis on empirical evidence and less on anecdotes, add longitudinal data to the reams of cross-sectional data currently available, and make time for data analysis as well as for data reporting. In addition, the community colleges must shift from a community services mode of operation to an undergraduate education mode. The effort to define and collect data on student outcomes will have its greatest effect if matched by a renewed emphasis on matriculation, sequential learning, and program completion. (JMC)

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Defining Student Outcomes Indicators at the Community College

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Defining Student Outcomes Indicators at the Community College

Thanks for the opportunity to speak about the definition of student outcomes indicators at community colleges. In the ten years that I've been involved with community colleges, I have been struck by the wide gap between available information on students and the questions that are often posed about them. As a librarian for the ERIC Clearinghouse for Junior Colleges, a spokesperson for AACJC, and now as a researcher at George Mason, I have often fielded questions from policy makers, the press, and community college practitioners themselves who want bench mark data on student flow, persistence, and attainment. What is the attrition rate? What is the graduation rate? What is the transfer rate? What is the job obtainment rate of vocational program graduates? Most available data, focusing as they do on cross-sectional measures of enrollment, degrees awarded, and the like provide few insights into what happens to students who enter our colleges.

The question-and-answer gap owes its existence to several factors. One, surely, is the harried life of the institutional researcher, who must conduct research in between frantic calls from state and federal agencies that need data--yesterday--on financial aid recipients, student athletes, or other objects of current political attention.

Another factor is the low priority of institutional research in relation to other college functions. Many community colleges have no institutional research office and may assign research responsibilities to the already overburdened portfolio of a dean, president's assistant, or faculty member. A third factor lies in the difficulty of tracking students after they've left the college. When it comes to seeking out information on student career success or academic experiences of transfer students, community colleges are often supplicants, dependent upon the willingness of former students to fill out survey instruments as well as the willingness of four-year institutions to share student records. A final problem lies in the mismatch between the premises of today's accountability movement and the educational roles the community college plays. While the accountability movement stresses matriculation, sequential learning and degree completion, the community college accommodates those who attend on a part-time, ad hoc basis to fulfill what Clifford Adelman (1989) has called "occasional" learning needs. No statistic says more about the community college than the fact that fewer than ten percent of students enrolled in community college credit classes earn an associate degree or credential. When it comes to defining student outcomes indicators and collecting data on those indicators, technical and staffing concerns pale in

comparison to the challenges posed by the ad hoc and often brief attendance patterns of community college students.

Nonetheless, the demands for outcomes information are increasing, spurred on by new accreditation requirements that seek evidence of institutional effects on students and by the U.S. Department of Education, whose notorious Wall Chart has--perversely--sparked popular interest in simple measures that gauge the health of the American educational enterprise and allow for comparisons--however spurious--between states and even institutions. In response to demands for this type of information, a number of outcomes indicators have been suggested, or are under development, for the community college. The League for Innovation in the Community College (1989) has been working for the past two years on the development of a comprehensive set of effectiveness indicators that will gauge student success in general education, transfer education, vocational education, and community services courses. The California Association of Community Colleges proposed a tentative set of institutional effectiveness indicators that included, among other items, at least some measures of student academic success (Renkiewicz and others, 1988). Standard definitions for the calculation of transfer rates--surely one of the most asked-about student outcomes--have been proposed by the National Effective Transfer Consortium and by Arthur Cohen at the Center for the Study of Community Colleges. Several

institutions--including Prince George's Community College (Clagett, 1988), The Community College of Philadelphia (Hawk, 1987), Miami-Dade Community College (Belcher, 1989), and Florida Community College at Jacksonville (1989)--have developed their own indicator sets and made them available to others through the ERIC system. Like the data reported in your own Performance Profile (Maryland State Board for Community Colleges, 1988) all are examples of attempts to add data on student flow and attainment to the store of available data on enrollment size and other measures of the magnitude of the educational enterprise.

It's not my intention today to review these indicators, most are tentative and some are ill-defined. Rather, I'd like to discuss three factors that underlie the success of college efforts to define and use indicators of student outcomes. One is the nature of indicators and the importance of understanding what they can tell us about students and what they can't. The second is the decision-making process that policy-makers and researchers undergo in developing indicator sets. The third is the importance of indicators to the success of student tracking systems. Before we rush to provide data on student outcomes, each of these factors needs to be considered.

What can indicators tell us about our students?

Indicators are numbers, not outcomes. Defined as "something that points out, gives an indication of, or expresses briefly or generally," an indicator should be interpreted as a guidepost or warning, not as a precise measure (Renkiewicz and others, 1988, p. 6). For example, indicators of student outcomes might include the percent of entering students who, within a specified period of time, earn an associate degree; the percent of former students who indicate on follow-up surveys that they are "satisfied" or "very satisfied" with the college experience; or the percent of first-time students who, within a specified period of time, transfer to a four-year college or university. These indicators, collected year after year according to consistent definitions may point to trends that bear further investigation. But they are value free; they do not of themselves gauge college effectiveness. As Peter Ewell (1983) has cautioned:

> The indicative quality of most student outcomes research is probably the aspect least well understood by its critics. . . . Most procedures for gathering data on student outcomes are indirect and will provide only partial information on a given outcome. Information gathered in this manner is ordinarily much more useful for the questions it raises than for the answers it provides. (p. 62)

This has several implications for those defining outcomes indicators. First, it is important not to mislabel

them as "success measures" or to otherwise give the impression that they are absolute bench marks of institutional performance. When indicators are published, their limitations should be carefully spelled out. In this regard the annual Performance Profile issued by the Maryland State Board for Community Colleges is a model of clarity. Second, it is helpful to view the indicators as the raw material for the college's research effort. At the Community College of Philadelphia, for example, indicators constitute one segment of a research program that includes classroom research focusing on teacher effectiveness and institutional research focusing on topics of special interest, such as analyses of the factors that contribute to retention. Indicators are used to guide further, in-depth studies in both of these research areas and are not used by themselves to make judgments about program or institutional effectiveness (Hawk, 1987). Finally, outcomes indicators should probably be reported along with indicators of selected educational inputs and processes, such as the educational goals of the entering students, faculty student ratios in different programs, or even revenues per FTE student. The rationale here is that it is necessary to show how the variables in the three domains of inputs, processes and outcomes interact (Odden, 1990). For instance, it might be helpful to juxtapose indicators of transfer with indicators of the educational objectives of entering students.

What policy decisions have to be made in defining indicators?

Sometimes the definition of outcomes indicators depends on the data available to the college. If the college routinely conducts follow-up surveys of program graduates, for example, why not use the data to report indicators of graduate satisfaction with the college experience? If data on student course-taking patterns and grades are machine readable, why not use them to report course completion ratios and other indicators of semester-by-semester persistence? It is better to array available data in ways that illuminate the students' college experience than to leave the data unused in file cabinets or data archives.

While available data--when synthesized and interpreted--will undoubtedly go a long way to answer questions about student flow and outcomes, I think it is better in the long run to take a different approach, asking first "What do we want to know about our students?" and then implementing data collection procedures accordingly. This approach requires the input of the larger campus community, not just institutional research or data processing personnel, because three policy questions will have to be answered.

The first question is "What outcomes do we want our students to achieve?" The specification of outcomes indicators is, in effect, a statement of the educational goals the institution sets for its students and hence a

statement of its educational priorities. An indicator on transfer, for example, sends a message that transfer is important, that the college commits a substantial share of its resources to preparing students for upper-division study, and that the indicator will be used to help assess the college's effectiveness in transfer education.

The second question is "How shall the indicator be defined?" While the operational definition of an indicator may seem a matter of concern for researchers, college presidents and other policy makers need to realize that ill-thought definitions can skew indicators and affect the way they are interpreted. The literature, for example, reveals transfer rates ranging from five to 84 percent, depending on how the denominator of the equation is defined (Cohen, 1990). Throwing all students in the denominator will result in a transfer rate that is lower than using only those students who declare a transfer intention upon entrance. If educational intent is figured into the equation, results will vary depending on the way that intent is measured.[1] It is often tempting for policy makers to select operational definitions that yield the most favorable indicators; certainly the 84 percent transfer rate looks better than the

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[1] Brawer (1988) describes how different questions used in surveys of educational intent result in different answers. Ask "What is the highest degree you plan to obtain?" and the vast majority of students will indicate a bachelor's degree or higher. But ask "What is your primary reason for enrolling in this college in this time?" and only about a third will indicate that they have enrolled to prepare for transfer.

five percent transfer rate. But in selecting indicators, it is important to consider if the operational definition chosen will yield data that appear self-serving and hence have little credibility.

The third policy question is "For whose outcomes shall the college take responsibility?" The issue of responsibility is especially perplexing, because few students leave the community college with an institutional cachet, that is, with the associate degree. As a result, outcomes indicators need to be defined in ways that specify which students have been significantly exposed to the college and its educational programs. Opinions vary on which students should be included. The transfer rate definitions recently proposed by the National Effective Transfer Consortium (NETC) and by the Center for the Study of Community Colleges (CSCC) are good examples. The denominator in the transfer rate proposed by the National Effective Transfer Consortium includes all students who earn six credits at the community college, while the denominator in the transfer rate proposed by the Center for the Study for Community Colleges includes students who earn 12 credits or more. This variance reflects differing opinions about who can reasonably be called a product of the community college, a troubling issue that crops up in the definition of almost any student outcomes indicator. If scores on tests of basic skills and general knowledge are used as outcomes indicators, whom shall the

college test? If job obtainment is a desirable indicator, can the college properly claim credit for the employment success of students who took only one or two vocational courses? When students do not complete a full program of study, the question of whose outcomes to assess has no easy answer.

What role do indicators play in longitudinal student tracking systems that gauge student progress over time?

The choices policy makers and researchers make in defining outcomes indicators are helpful not only for the sake of those indicators, but also for the construction of student tracking systems. In fact the specification of outcomes indicators--after due consideration of what it is we want to know about students--is the first step in building a tracking system. Once indicators are defined, the contents of the tracking system become apparent. If, for example, a college decides that its transfer indicator is to be constructed around the transfer rate definition proposed by the Center for the Study of Community Colleges (CSCC), then student records in its tracking system will have to include data on prior educational experience and credits earned at the community college, as well as a flag indicating whether

or not the student has transferred.[2] Indicators, in short, are the building blocks of the tracking system.

Some may argue that the approach advocated here--building a tracking system around pre-defined indicators--unnecessarily limits the data base and that it would be better to proceed on a post-hoc basis, organizing all available student data into the tracking system and using the computer to analyze outcomes for student cohorts against all possible combinations of student attributes and persistence patterns. The reasoning here is that today's computer systems facilitate the analysis of large data sets and that this capacity allows researchers to search for and examine the multiple determinants of student retention and achievement. By limiting the tracking system to data required for a pre-determined set of indicators, it can be argued, important insights into student flow may be missed.

Though this reasoning may at first seem compelling, the dangers of the post-hoc approach should be recognized. Searching for indicators after the data have been collected results in a rudderless tracking system, one in which the data that happen to be at hand guide the college's research effort rather than policy issues related to institutional

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[2] The denominator in the CSCC transfer rate includes students who entered the community college with no prior college experience and who, within five years, completed at least 12 college credit units at the community college and subsequently enrolled in at least one class at four-year college or university.

effectiveness. In addition, the post-hoc approach assumes that the more data collected, the better. This discourages limitations in data based size and may result in data hogs, relatively large data sets that take an inordinate amount of time to maintain. Finally, the post-hoc approach leaves the impression that one can create an all-purpose data base with the capacity to answer most (if not all) questions about student flow and attainment that may arise. This is an impossible premise that sets the tracking system up for failure. Regardless of the computer's ability to combine and compare data in multiple formats, no data base can address all questions about student college experiences. It is far better to state in advance what questions the tracking system is designed to answer. By defining indicators of student progress, the college president articulates the purpose of the tracking system and provides guidance for its design and use.

Conclusion

Once indicators have been defined, once they have been incorporated into the fabric of the student tracking system, once the reports are generated and disseminated, what affect will these data have on community college education? The answer to this question will depend on how the data are used, which in turn will depend not only on the credibility of the data produced, but on the ability of the community college as

an institution to accommodate the premises of the accountability movement that I referred to at the beginning of my talk.

Part of this accommodation will involve changes in the way those of us in the community college movement use data. When telling the community college story, we'll have to place more emphasis on empirical evidence and less emphasis on anecdotes. We'll have to add longitudinal data to the reams of cross-sectional data that are currently available. In addition, we'll have to make time for data analysis as well as for data reporting. Too often, data collected by colleges remain unanalyzed and unreported because the time for such analysis is simply unavailable. Finally, we'll have to overcome our fear of data and the way they may be used politically to make a case against the community college. It is a fact that no matter how well we define our indicators, no matter how clearly we report them with bold-faced caveats and limitations, somebody will misuse the data to rank order institutions or otherwise make value judgments about the colleges. It would be a shame, though, if this stopped us from taking the initiative to develop a base of empirical evidence which might guide our analyses of student flow and attainment.

But if outcomes measures are to have an impact, we will have to attend to more than the way we use data. The community college will have to shift from a community

services mode of operation to an undergraduate education mode. The former is consumer-oriented, stressing the provision of courses as needed to meet the legitimate but ad hoc educational needs of adults. The latter is curriculum-based, stressing student flow in a sequential series of courses that lead to employment or upper-division studies. The community services emphasis implies that there are as many educational outcomes as there are students. The undergraduate education emphasis focuses on defined outcomes related to the role of the institution as part of the educational pipeline. The effort to define and collect data on student outcomes will have its greatest effect if it is matched by a renewed emphasis on matriculation, sequential learning, and program completion.

References

Adelman, C. "Using Transcripts to Validate Institutional Mission: The Role of the Community College in the Postsecondary Experience of a Generation." Paper presented at the convention of the Association for the Study of Higher Education, November 1989.

Belcher, M. Institutional Effectiveness at Miami-Dade Community College. Research report no. 89-11R. Miami, Fla.: Miami-Dade Community College, 1989.

Brawer, F. B. "Assessing Student Goals and Outcomes." Paper presented at the Maryland Dean's Meeting, Arnold, Maryland, March 25, 1988. (ED 292 486)

Clagett, C. A. Student Outcomes Performance Accountability Report. Largo, Md.: Prince George's Community College, 1988.

Cohen, A. M. "Counting the Transfers: Pick a Number." Community, Technical, and Junior College Times, April 24, 1990.

Ewell, P. T. Information on Student Outcomes: How to Get It and How to Use It. Boulder, Colo.: National Center for Higher Education Management Systems, 1983. (ED 246 827)

Florida Community College at Jacksonville. Strategic Performance Indicators. Jacksonville, Fla.: Florida Community College at Jacksonville, 1989.

Hawk, T. R. "Quality Assessment in Action." Paper presented at the annual meeting of the Pennsylvania Community Colleges, June 1987. (ED 293 575)

League for Innovation in the Community College. "Assessing Institutional Effectiveness in the Community College." Unpublished First Draft. Laguna Hills, Calif.: League for Innovation in the Community College, 1989.

Maryland State Board for Community Colleges. Performance Profile, Maryland Community Colleges. Annapolis: Maryland State Board for Community Colleges, 1988. (ED 259 770)

Odden, A. "Educational Indicators in the United States: The Need for Analysis." Educational Researcher, 1990, 19 (4), 24-29.

Renkiewicz, N., and others. Indicators of Successful Community Colleges. A Report to the 59th Annual CACC Convention, November 1988. Sacramento: California Association of Community Colleges, 1988. (ED 301 286)

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